

CLIMATOLOGICAL DATA FOR WEATHER BUREAU STATIONS FOR MAY 1948—Continued

District and station	Elevation of instruments			Pressure			Temperature of the air										Total heating degree days	Precipitation			Wind			Character of day (sunrise to sunset), number of days			Average cloudiness, tenths (sunrise to sunset)	Possible sunshine																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
	Barometer above sea level ¹	Thermometer above ground	Anemometer above ground	Station	Sea level	Departure from normal	Averages				Extremes				Mean temperature of the dew point	Mean relative humidity		Total	Departure from normal	Greatest in 24 hours	Days with 0.01 inch or more	Days with thunderstorms	Total snowfall (unmelted)	Snow, sleet, and ice on ground at end of month	Average hourly speed	Prevailing direction			Maximum velocity			Clear	Partly cloudy	Cloudy																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
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MIDDLE PACIFIC COAST	<i>Ft.</i>	<i>Ft.</i>	<i>Ft.</i>	<i>Mb.</i>	<i>Mb.</i>	<i>Mb.</i>	<i>°F.</i>	<i>°F.</i>	<i>°F.</i>	<i>°F.</i>	<i>°F.</i>	<i>°F.</i>	<i>°F.</i>	<i>°F.</i>	<i>°F.</i>	<i>°F.</i>	<i>°F.</i>	<i>In.</i>	<i>In.</i>	<i>In.</i>	<i>In.</i>	<i>In.</i>	<i>m. p.h.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<i>n.</i>	<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¹ Height of barometer cistern above mean sea level on January 1, 1930, or when station was first established since January 1, 1900. When station is moved to new location or airport, the pressure is reduced to the original elevation for homogeneity. These elevations do not represent the present station elevation in most cases.

² Data are from airport records. Pressures adjusted to original elevations according to note 1.

³ Barometric, hygrometric, wind, character of day, and average cloudiness data from airport records; remainder from city office records.

⁴ Barometric and hygrometric data from airport records; remainder from city office records.

⁵ Barometric, temperature, degree day, and hygrometric data from airport; remainder from city office records.

⁶ Bi-hourly hygrometric data.

NOTE.—Unless otherwise indicated, data in table are city office records.

SEVERE LOCAL STORMS FOR MAY 1948

[The table hereunder contains such data as have been received concerning severe local storms that occurred during the month. A revised list will appear in the United States Meteorological Yearbook]

Place	Date	Time	Width of path, yards	Loss of life	Value of property destroyed	Character of storm	Remarks
Reno, Sedgwick, and Harvey Counties, Kans.	1	3:50-5 p. m.	1½-3½	0	\$60,000	Tornado, hail, and wind.	Violent winds began 8 miles northwest of Mount Hope, near Haven. Tornado apparently formed a short distance west of Bentley; path 38 miles long; ended east of Walton at about 4:30 p. m. Vortex cloud plainly visible. Damage mostly to rural property. Hail damage to crops, \$10,000.
Chase County, Kans.	1	5-5:30 p. m.	126	0	25,000	Tornado and wind.	Tornado, which occurred in area of violent winds, apparently formed 13 miles south of Clements, near the origin of tornado 1 week previous, and ended near Plymouth. Damage to rural property. Storm path 35 miles long.
Douglas County, Kans.	1	Afternoon			5,000	Hail	Occurred over most of county.
Miami County, Kans.	1	6-7:30 p. m.	15		30,000	do.	Occurred in eastern part of county. Path 10 miles long. Some hailstones as large as hens' eggs. Loss to crops.
Osage and Shawnee Counties, Kans.	1	6-8:30 p. m.		0	145,000	Tornado, hail, and wind.	General wind storm, especially severe in Scranton and Burlingame area. Many barns and sheds damaged or demolished. A tornado accompanied wind storm in path ½ mile north of Overbrook to ¾ mile east. Vortex cloud did not quite reach ground. Light to moderate hail over much of wind-damaged area.
Neosho County, Kans.	1	6:25-7:30 p. m.	100-1,760	2	500,000	Tornado	Originated south of Thayer. Path 25 miles long. Passed north of Erie and ended southeast of Stark. Several vortex clouds sighted, some almost a mile from main cloud. Buildings on more than 60 farms badly damaged or completely destroyed. At least 14 families left homeless. 5 persons injured.
Boone County, Mo.	1	7:20 p. m.			2,500	Wind	Storm from southwest struck Columbia and vicinity. Many trees and chimneys damaged; power and telephone lines broken.
Miller County, Mo.	1	9:10 p. m.	112		25,000	do.	Storm from west damaged many sign boards, power and communication lines and some buildings in Eldon and vicinity. Slight damage to crops and gardens. 3 drowned when boat capsized about 3 miles above Bagnell Dam. Path 15 miles long.

See footnote at end of table

SEVERE LOCAL STORMS FOR MAY 1948—Continued

[The table hereunder contains such data as have been received concerning severe local storms that occurred during the month. A revised list will appear in the United States Meteorological Yearbook.]

Place	Date	Time	Width of path, yards	Loss of life	Value of property destroyed	Character of storm	Remarks
Rogers, Craig, and Delaware Counties, Okla.	1	9:15-10:15 p. m.	50-100	4	300,000	Tornado, wind and hail.	Path 35 miles long. 200 injured, 15 seriously. Tornado damage estimated at \$250,000, hail damage at \$40,000, and wind damage at \$10,000. Tornado moved in easterly direction. More than 60 homes damaged or destroyed. High winds and hail reported in areas on both sides of tornado path. The following towns reported damage: Vinita, Grove, Pensacola, Afton, and Dennis. 4 persons killed by tornado. 1 person electrocuted when repairing power lines.
Cole County, Mo.	1	9:35 p. m.	440	0	500,000	Tornado.	Storm from west, path $\frac{1}{2}$ mile long in St. Thomas and vicinity. Some livestock and poultry killed; several homes completely unroofed, and nearly all homes, in town of 200 people, damaged. Only slight crop damage. 2 persons injured.
Cooper County, Mo.	1	Between 10 and 11 p. m.	13			Hail.	Storm near Woodbridge moved eastward in path 7 miles long. Pastures, gardens, fruit trees, oats and wheat damaged considerably. Some wildlife killed.
Callaway County, Mo.	1	10:30 p. m.			5,000	Wind.	Storm from southwest, in and around Fulton, damaged or demolished several barns and other outbuildings; some poultry killed.
St. Louis County and St. Louis City, Mo.	1	11:28-11:40 p. m.			300,000	do.	Storms from southwest; also struck East St. Louis, Granite City, and Monsanto, Ill. Damage in city of St. Louis estimated at \$100,000. Winds estimated at 75 miles per hour. Many houses and apartment buildings unroofed; at least 9 persons slightly injured, mostly by flying glass. Power and telephone wires and many trees broken. Some automobiles damaged by falling trees and other objects.
Franklin County, Mo.	1	11:30 p. m.	125			do.	Storm from west, path $\frac{1}{4}$ miles long, damaged trees in Missouri Botanical Gardens at Gray Summit.
Woods County, Okla.	1				4,000	Electrical.	Lightning struck and burned farm home 7 miles northwest of Farry.
East St. Louis, Monsanto, and Granite City, Ill., and vicinity.	2	12:30-1 a. m.		1	200,000	Wind.	1 person electrocuted at Granite City by power line blown down. Winds up to 75 miles per hour caused considerable damage to buildings, windows, and automobiles. Greatest property loss was at Monsanto, where a precast concrete roof blew off chemical company building and costly equipment damaged. Many trees uprooted by high wind. 4 persons reported injured. Storm also hit St. Louis, Mo.
Thomas County, Kans.	2	Early morning.	16		150,000	Hail.	In eastern part of county. Path 30 miles long. Damage mostly to crops.
Chester, S. C.	2	3 p. m.			2,000	Wind and hail.	Several roofs and many trees damaged.
Salisbury, N. C.	2	3-3:10 p. m.	500		25,000	do.	Wind estimated at 60 to 80 m. p. h. \$12,000 damage to planes at Salisbury airport. Damage to buildings, trees, and crops estimated at \$13,000.
Desoto, Ind., to Mercer County, Ohio.	2	4 p. m.	880	0	160,000	Tornado.	Storm moved northeastward. 3 funnels reported. Worst damage in Ridgeville, Ind.
Darke County, Ohio.	2	4:45 p. m.	11	0	350,000	do.	Moved northeastward in path 15 to 20 miles long from Palestine to a point north of Greenville. Numerous barns and houses damaged; much poultry and some cattle killed.
Miami and Champaign Counties, Ohio.	2	5 p. m.			1,000,000	Wind.	Some farm homes and barns totally destroyed and others damaged. 3 persons injured; 25 head of cattle killed.
Athens County, Ohio.	2	6 p. m.	880	0		Tornado and hail.	Moved northeastward in path 15 to 20 miles long. Many barns and houses damaged by wind; hail broke windows and damaged roofs and sidings of houses.
Mercer County, Ohio.	2	Afternoon.		0		Tornado.	Apparently originated in Indiana and moved to point south of Fort Recovery, Ohio. Apparently very little damage in Ohio.
Cheyenne and Rawlins Counties, Kans.	2	6-7:30 p. m.	14-4		200,000	Hail.	Originated in Colorado. Path 70 miles long. Accumulation of hailstones several inches deep in some places. Damage mostly to wheat.
Wayne and Clinton Counties, Ky.	2	7-8 p. m.	300	5	200,000	Tornado.	A church and several residences of Alpha, Ky., demolished. Crops, livestock, farm buildings and equipment in path about 10 miles long destroyed.
Northern Jackson County and Southeast Banks County, Ga.	2	7-8 p. m.			100,000	Hail.	Hail, as large as golf balls in some areas, with heaviest at and around Commerce. Affected area probably 100 square miles. Losses to small grain and especially to peaches amounted to about \$50,000. Many window panes broken and much damage to house roofs.
Doddridge and Harrison Counties, W. Va.	2	8:30-9:30 p. m.	34-100	4	250,000	Tornado, electrical, hail, and rain.	Storm traveled from Big Isaac in Doddridge County via Buffalo Creek, West Milford, Highland Dam Section on West Fork River, and Mount Clare to Quiet Dell in Harrison County. 75 to 80 persons injured; 3 homes burned by lightning; 35 homes, 1 church and a number of farm buildings destroyed by wind. Lesser damage to many more buildings. Hailstones reported as large as 8 inches in circumference; apparently several stones fused together after falling.
Jackson County, Ohio.	2					Hail.	Early fruits damaged 25 percent.
Baltimore, Md.	3	A. m.				Electrical and wind.	Lightning struck church steeple causing slight damage, also a home setting fire to crib in which a baby was sleeping. Phone lines at Sparrows Point disrupted.
Murray, Johnston, and Atoka Counties, Okla.	3	12:30-3:10 p. m.	600-880	0	291,000	Tornado and hail.	Path 55 miles long in a southeast direction. 3 persons injured, 2 in Johnston County and 1 in Atoka County. Much of path was over thinly populated ranch country. Most of hail damage reported from Atoka County where path was about 8 miles wide. Hail over 2 $\frac{1}{2}$ inches in diameter. Damage by tornado, \$166,000; by hail, \$125,000. Light hail caused no damage. 1 country home destroyed.
Nocona, Montague County, Tex.	3	1:50 p. m.	100	0	1,000	Tornado and hail.	
Bridgeport, Wise County, Tex.	3	2 p. m.	13		25,000	Hail and wind.	Wind damage of \$2,500 to property. Hail damage to crops, \$5,000; to property, \$17,500.
Washington County, Okla.	3	2:30 p. m.	11		25,000	do.	Storm moved eastward for about 3 miles through Rice Creek and Fish Creek vicinities, 4 miles south and southwest of Bartlesville. Hail $\frac{1}{4}$ to $\frac{1}{2}$ inches in diameter. Hail damage \$24,000 to crops, \$500 to roofs. Wind damage \$500 to trees.
McKinney, Collin County, Tex.	3	2:59 p. m.	587	3	2,000,000	Tornado, hail and wind.	43 persons injured. Over 300 homes and buildings damaged; no damage from hail; heaviest damage to Texas Textile Mill and school building.
Choctaw County, Okla.	3	Afternoon.			10,000	Electrical and wind.	Church steeple struck and burned. Several barns in western Choctaw County unroofed. Some damage to windows, etc. in Hugo.
McCurtain County, Okla.	3	do.			8,000	do.	High winds caused \$1,000 damage. \$7,000 loss by lightning. Damage in Idabel, Holly Creek, and Redlow communities.
Columbia, S. C.	3	9:35 p. m.			1,000	Wind.	Damage mostly to structures.
Mayes, Craig, and Delaware Counties, Okla.	3					Hail.	Considerable damage to gardens, crops, and fruit trees in Pensacola, Grove, and Vinita communities.
Dallas County, Ala.	4	10:15 a. m.			5,000	Thunderstorm.	Buildings unroofed and trees uprooted near Selma.
Autauga County, Ala.	4	10:30 a. m.		1	10,000	do.	A church, being used as a school, demolished near Prattville; a child killed, and 2 teachers and 13 pupils injured.
Montgomery, Ala.	4	10:35 a. m.			30,000	do.	Tile roof, windows and 11 airplanes damaged at Maxwell Field. Other miscellaneous building and tree damage in north Montgomery. 5 persons injured.
Lee County, Ala.	4	11 a. m.			5,000	do.	Trees blown down, plate glass windows broken, and electric and telephone service interrupted at Opelika.
Colorado Springs, Colo., 22 miles south of.	4	a. m.		1	200	Dry squall.	A child killed and 2 children seriously injured when an old barn was blown over on them.

See footnote at end of table

SEVERE LOCAL STORMS FOR MAY 1948—Continued

[The table hereunder contains such data as have been received concerning severe local storms that occurred during the month. A revised list will appear in the United States Meteorological Yearbook]

Place	Date	Time	Width of path, yards	Loss of life	Value of property destroyed	Character of storm	Remarks
Greensboro, Ga., near.....	4	1:52 p. m.	100-150	0	10,500	Tornado.....	Storm moved east-northeastward over 11-mile path, striking first 8 miles west of Greensboro. A home totally destroyed and another heavily damaged; a large barn unroofed and otherwise damaged; a concrete building on dairy farm badly cracked. Much damage to timber, but crop losses very little.
Dougherty County, Ga., southern portion.	4	2:30-3:20 p. m.	-----	-----	1,615	Electrical.....	High winds and hail caused little damage. Lightning set fire to a large barn, causing complete loss, including considerable feedstuff, 1 horse and some adjacent property.
Albany, Ga., near.....	4	2:35 p. m.	100	0	700	Tornado.....	Storm from south struck first about 3 miles east of Albany, destroying a 3-car garage and damaging numerous trees; communication and power services disrupted, a large transformer put out of service, and a large chicken brooder destroyed. Moderate hail accompanied storm, but very little damage. The storm lifted after traveling along ground for about 4 miles.
Augusta, Ga.....	4	2:43-4:15 p. m.	City-wide	-----	500	Electrical and wind.....	Some trees and power and telephone lines blown down. 1 man killed through contact with "live" wire.
Columbia, S. C.....	4	5 p. m.	-----	-----	6,000	do.....	Fire from lightning caused most of damage, but a few structures and trees damaged by wind.
Washington County, Okla.....	5	4 p. m.	15-10	-----	-----	Hail and wind.....	Considerable damage to gardens, flowers, car tops, and roofs in Bartlesville.
Okfuskee County, Okla.....	5	4:15 p. m.	15	-----	34,000	Wind and hail.....	Struck Okemah. \$10,000 damage to crops by hail. Hail 2 inches in diameter.
Charleston, S. C.....	5	5:30 p. m.	-----	1	100,000	Wind.....	A sudden squall of extremely high wind near the municipal airport wrecked hangar and damaged 25 planes.
Pittsburgh County, Okla.....	5	6:15 p. m.	100-880	0	45,000	Tornado.....	Storm through Blocker for about 4 miles east. Accompanied by some small hail. Debris in all directions. Many houses unroofed. 5 dwellings blown down. 1 person injured.
Conway County, Ark.....	5	7:30 p. m.	-----	1	-----	Electrical.....	1 boy killed by lightning at Robertstown.
Knight Ranch, McCullough County, Tex.	5	-----	-----	0	50,000	Tornado.....	25 miles northeast of Brady, near Mercury. 2 houses and a barn blown away. Damage to livestock and farm equipment.
Montgomery, Ala.....	6	6 a. m.	-----	-----	50,000	Thunderstorm.....	At Dannelly Field, 2 small planes destroyed and a third damaged. A farmhouse demolished 8 miles south of town. Many dwellings and trees damaged in scattered parts of city and vicinity.
Butler County, Ala.....	6	Early morning	-----	-----	15,000	do.....	Near Glasgow community, 3 tenant houses destroyed and 1 man injured slightly.
Clarke County, Ala.....	6	do	-----	-----	15,000	do.....	A planing mill unroofed and several flimsy frame houses blown down at Jackson.
Mobile, Ala.....	6	do	-----	-----	2,000	do.....	At Municipal Airport, 2 small buildings unroofed, administration building and control tower damaged, and wing of small plane smashed. Some damage to resort area on eastern shore of Mobile Bay.
Dallas County, Ala.....	6	do	-----	-----	20,000	do.....	Trees and buildings damaged in scattered sections of Selma and vicinity.
Rusk, Cherokee County, Tex.	6	11:30 p. m.	16	-----	25,000	Hail and wind.....	Wind damage \$2,500 to property. Hail damage to crops, \$15,000; to property, \$7,500.
Southern Mono and northern Inyo Counties, Calif.	7	5:30 a. m.-3:30 p. m.	-----	-----	40,000	Wind.....	Damage between Bishop and Leavening. A few cabins and other small buildings destroyed or damaged. Numerous large pine trees felled. Roofs, signs, windows, and chimneys damaged extensively. A water tank blown over. 3 power line towers fell, disrupting electric service.
Milwaukee, Wis.....	9	Evening	-----	-----	1,500	Electrical.....	Lightning fire damaged house; 2 chimneys struck and damaged.
Webster County, Mo.....	10	2 a. m.	-----	0	5,000	Tornado.....	Probably a small tornado hit southern part of Marshfield, where several houses damaged, some trees uprooted, and some telephone and power lines broken.
Pulaski County, Mo.....	10	2:30 a. m.	100	-----	1,000	Wind.....	Some trees blown down and several barns, machine sheds, and outbuildings damaged at and near Crocker.
Laclede and Texas Counties, Mo.	10	11:50 a. m.	50	-----	1,000	do.....	Storm from southwest. Path 8 miles long. Damaged several barns and other outbuildings; some trees uprooted. Most damage between Lynchburg and Eveningshade.
Possum Kingdom Dam, Palo Pinto County, Tex.	10	11:45 a. m.	440	-----	1,800	Hail.....	Principal damage to roofs.
Kenosha, Wis.....	10	a. m.	-----	-----	5,000	Wind.....	Harbor wharf damaged by 5-foot swell from Lake Michigan.
St. Joseph and Elkhart Counties, Ohio.	10	4:45 p. m.	440	0	20,000	Tornado.....	Storm moved eastward, south of Mishawaka, damaging airport. Some damage in Elkhart.
Mason, Mason County, Tex.	10	7:15 p. m.	13	-----	2,000	Hail.....	Principal damage to crops.
Curry County, N. Mex.....	10	7:30 p. m.	-----	-----	-----	do.....	Considerable damage to gardens and flowers; only slight damage to field crops.
Saline County, Mo.....	10	-----	11	-----	-----	do.....	Storm from west. Path 2 1/4 miles long. Damaged early gardens considerably in Sweet Springs and surrounding areas.
Thornton, Limestone County, Tex.	11	9:15 a. m.	220	-----	-----	Wind and hail.....	2 garages, tractor, and car damaged. Light hail caused no damage.
Altmar, N. Y.....	12	Early a. m.	-----	-----	-----	Wind.....	2 silos blown down, a barn unroofed, private garage overturned, trees uprooted, and communication and power lines broken.
Greenville, Hunt County, Tex.	12	6 p. m.	880	-----	-----	Tornado, electrical and hail.....	Small tornado struck on Greenville-Terrell highway, 3 miles south of Greenville. Heavy loss to barns, homes, and outbuildings.
Madison, Minn., vicinity of.	14	7-7:30 p. m.	12	1	68,000	Thunderstorm.....	2 barns and a number of outbuildings demolished; farm houses damaged; some livestock perished; trees uprooted; portion of new building under construction blown over.
Grady County, Okla.....	15	After 9 p. m.	1 1/4-1	0	18,000	Tornado and hail.....	Storm 2 miles long between Anadarko and Verden. No injuries, 3 farmsteads damaged or destroyed. Damage \$1,000 to crops; \$2,000 to livestock; \$15,000 to buildings.
Washington and Benton Counties, Ark.	15	9:30 p. m.	13	-----	50,000	Hail.....	Hail up to 1 1/2 inch in diameter, covered large area extending from the Fayetteville Agricultural Experiment Station northward into Missouri. Heaviest damage in vicinity of experiment station, mostly to fruits and vegetables, with some grain damaged.
Stone County, Mo.....	15	-----	11	-----	1,000	do.....	Most damage to strawberries and gardens at Lampe and vicinity. Path 10 miles long.
Dodge County, Nebr.....	15	-----	-----	-----	-----	do.....	Alfalfa damaged slightly; some truck gardens and crops destroyed; glass in greenhouses broken in Fremont.
Salisbury, Md.....	17	A. m.	-----	-----	35,000	Wind and floods.....	Early spring crops suffered damage from local flash floods. Considerable damage by winds to trees and buildings.
Calvert County, Md.....	17	A. m.	-----	-----	-----	Electrical and wind.....	A home on Island Rock, burned by lightning; damage estimated at \$8,000. A tobacco barn at Lusby, blown down. Trees blown down, 1 falling on home, doing considerable damage.
South Plainfield, New Market and Bound Brook, N. J.	17	3-3:30 p. m.	-----	-----	50,000	Hail.....	Severe thunderstorm with heavy hail; hailstones up to 2 inches in diameter. Principal damage to small plants, particularly spinach crop. 14 planes damaged somewhat at Hadley Airport, South Plainfield. Considerable damage to glass, especially greenhouses. Electric signs and automobile roofs damaged. Local residents reported storm most severe in 50 years.
Garden County, Nebr.....	17	-----	-----	-----	-----	Wind.....	Wind demolished hangars and 2 planes, causing losses of about \$8,000. at Oshkosh Airport. Some damage to crops and a few farm buildings.
Sandpoint, Idaho.....	19	2:30-10 a. m.	-----	-----	12,000	Wind.....	Stiff northeast wind coupled with high water on Lake Pend Oreille damaged older boathouses and sank several boats.

See footnote at end of table

SEVERE LOCAL STORMS FOR MAY 1948—Continued

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Place	Date	Time	Width of path, yards	Loss of life	Value of property destroyed	Character of storm	Remarks
Sante Fe, N. Mex.	19	1:30 p. m.			600	Hail and rain	Estimated \$100 damage to local gardens and fruit, \$500 to buildings. Latter damage due to flooding from heavy rains.
Billings, Mont.	19	7:50 p. m.				Thunderstorm and rain.	Storm accompanied by light small hail occurred at 5:30 p. m. Precipitation measured 0.44 for a 5-minute period. Frequent power failures and interrupted telephone service.
Big Bend County, Wash.	19					Thunderstorm and wind.	Very severe locally, causing considerable soil erosion and damage to communication lines.
Athens, Wis.	20	2:30 p. m.		1		Electrical.	Lightning struck wire fence, killing farmer.
Seeley Lake, Mont.	20	3:30-3:53 p. m.				Thunderstorm and hail.	Hail 1½ to 2¾ inches, broke limbs of trees, dented hoods and tops of cars.
Tomah, Wis.	20	4:30 p. m.			35,000	Line squall.	7 airplanes and a hangar wrecked.
Billings, Mont.	20	5:45 p. m.		0		Tornado.	A tornado funnel sighted for about 20 minutes over hills 35 miles south-southwest of station. Funnel extended and retracted quite rapidly, reached ground for a time early in its development.
Flatwillow, Mont.	20					Wind and hail.	Strong wind destroyed 2 ranch buildings. Considerable hail damage southwest of Flatwillow.
Platte County, Wyo.	21	6-8 p. m.	1 1¼	2	100,000	Hail and rain	Storm occurred near Wheatland from approximately 3 miles west-northwest of city to approximately 3 miles south. Rainfall reported amounting to 3 and 4 inches within 2-hour period. Some hail 1 inch in diameter. Hail damaged crops and buildings but most damage caused by floods and erosion. Approaches to some highway bridges washed out. Part of Colorado and Southern Railway track washed out, causing train wreck and death of 2 railway employees.
Richmond County, Va.	21	8:30-9:30 p. m.	880		100,000	Hail.	Haynesville Village area to the Bay. Heavy damage to corn; small grains and tomatoes totally destroyed.
Northumberland County, Va.	21	9-9:30 p. m.	1 1-1¼		77,000	do.	Upper edge of county to Ophelia. Small grains and tomatoes totally destroyed; damage to corn slight; damage to buildings moderate.
Broadwater County, Mont.	21			0		Tornado and electrical.	Tornado high over bench. Stopped field work for short time. Lightning set brush fire along Missouri River.
Sun River, Mont.	21-22					Hail and electrical.	Hail shredded leaves of some vegetation. 1 house struck by lightning, burned.
Cottonwood, Idaho.	22	1 a. m.—12 noon.			15,000	Rain.	Damage on ten-square mile area surrounding Cottonwood due to erosion and flooding. Some damage, amount not estimated, to highways by landslides and debris.
Kingman County, Kans.	22	7:30 p. m.	1 4		728,000	Hail.	Path 25 miles long extended from near Penafosa to Harper County line, including Zenda and Nashville. Damage chiefly to wheat.
Harper, Kingman, and Sedgwick Counties, Kans.	22	8-9 p. m.	1 2-4		125,000	Hail and wind.	Path 40 miles long extended from near Attica and Zenda to near Cheney. Damage mostly to wheat.
Hinsdale, Mont.	22	Afternoon.		0		Wind.	Power line poles felled and small buildings unroofed.
Lea County, N. Mex.	23	About 9 p. m.	1 6		18,000	Tornado.	Small tornado reported over range land.
Grant County, Okla.	23 and 24	About 9 p. m. each day.				Hail.	2 storms near Jefferson and Medford on successive days, covering approximately same area. Paths about 15 miles long. About 11¼ percent destruction to wheat. \$13,000 damage to wheat, \$5,000 to roofs, glass, and cars.
Rockingham County, Va.	24	3:30-4:30 p. m.	880		51,000	do.	West of Timberville and from Weyers Cave to Port Republic. Damage heaviest in Timber Ridge section; considerable damage in peach and apple section west of Timberville; small grain in Timber Ridge section completely ruined; damage lessened as storm continued eastward; a second peak damage area around Mount Crawford.
Culpepper County, Va.	24	5:45-6:45 p. m.	1 1		7,000	do.	Between Callaway and Dillon's Mill. Barley reduced 50 percent; oats, 75 percent; corn partly defoliated.
Franklin County, Va.	24	Late afternoon.	1 1-2¼			do.	Apples damaged considerably.
Tigerville, S. C.	25	3 p. m.			5,000	Winds.	Several houses unroofed, a few barns damaged and some trees blown down.
Tillman County, Okla., vicinity of Frederick.	25	4:15-5 p. m.	1 2		40,000	Hail.	Hail area 15 miles long, with a total destruction of crops on about 1,500 acres. All damage to wheat which was nearly ripe.
Cut Bank, Mont.	26	2:30 p. m.	1 18			do.	Very heavy hail with drifts in roads to depth of 6 inches. Some crop damage.
Schulenburg, Fayette County, Tex.	26	9 p. m.				Wind and hail.	7 miles north of Schulenburg in Swiss Alps section. Trees uprooted; some buildings damaged; cotton, corn and gardens damaged.
New Holland Community, S. C.	26	During day.			3,000	do.	Wind caused 1 injury and wrecked barn and stables.
Greenville, S. C.	26	During night.			750,000	Rain.	Excessively heavy rain in northern Greenville county caused damage to crops and considerable soil erosion.
Northern Wasco and Umatilla Counties, Oreg.	27	Late afternoon and evening.			5,000	Thunderstorm, hail and rain.	Considerable wheat and some fruit damaged.
Twin Falls County, Idaho.	27	Evening.		2		Electrical.	2 farmers killed by lightning; 1 near Twin Falls, the other near Filer.
Jacksonville, Fla. and vicinity.	28	4:15-4:45 p. m.			2,000	Electrical, wind, and hail.	Wind damage to roofs and a motor court, with some light poles blown down; 25 transformers knocked out by lightning. Damage from hail negligible.

See footnote at end of table

SEVERE LOCAL STORMS FOR MAY 1948—Continued

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Place	Date	Time	Width of path, yards	Loss of life	Value of property destroyed	Character of storm	Remarks
Kit Carson, Colo.....	28	6:15 p. m.	-----	-----	1,000	Hail and rain	Hail 2 miles west of Kit Carson accumulated to depth of 1 foot while heavy rains caused flooding of most basements in Kit Carson.
Burke County, Ga., middle and southwest portions.	29	8:30 a. m. to 3 p. m.	-----	-----	20,000	Hail	Hail, $\frac{3}{4}$ to $1\frac{1}{4}$ inches in diameter, affected area from Midville to Waynesboro. Some cotton fields totally destroyed.
Laramie County, Wyo.....	29	2:30 p. m.	100	0	10,000	Tornado	Storm destroyed farm buildings about 10 miles north of Cheyenne.
Lamesa, Dawson County, Tex.	29	7:10 p. m.	110	0	500,000	Tornado, hail, and wind.	Heavy hail damage, mostly to crops, \$250,000; wind damage, \$150,000 to buildings; tornado, \$100,000 to airplane hangar.
Saline County, Kans.....	30	5-6 a. m.	-----	-----	150,000	Wind	Damage at Smoky Hill Airfield, 2 miles south of Salina, where wind reached velocity of 82 m. p. h. at 5:12 a. m. Several military planes damaged.
Denver, Aurora, Welby, and Adams City, Colo.	30	4-8 p. m.	110	1	4,000,000	Electrical, hail, flood	Lightning killed 1 worker in field about 3 miles east of Aurora. Heavy rain and hail caused complete crop loss and heavy property damage in Welby district. Heavy loss to automobiles, highways, buildings, and crops in Adams City, Aurora, and Denver areas. Flood loss alone in Sand Creek basin reported as \$185,000.
Florence-Portland area, Colo	30	4:20-9 p. m.	16	-----	500,000	Hail	Heavy hail caused 75 to 100 percent crop loss, damaged automobiles, buildings and broke windows; 90 percent of flat roofs in Florence had to be replaced or repaired. \$10,000 loss to 1 rancher as a band of sheep drowned when caught in flood waters of an otherwise dry gulch.
Colorado Springs, Colo.....	30	6:07-7:30 p. m.	11	-----	150,000	Rain	Excessive rain caused flooding of large areas of eastern portion of city; homes flooded, roads and bridges undermined, and power facilities disrupted.
Mountain Park, N. Mex., and south in Fresno and La Luz canyons. Also central Union County, N. Mex.	30	Afternoon	-----	-----	4,500	Hail	Several storms reported, damage principally to crops.
Wauweta, Nebr.....	30	Evening	-----	-----	-----	do.	Some damage to roofs.
Mayhill, N. Mex., and vicinity.	31	1 p. m.	-----	-----	3,000	do.	Most of damage to local gardens and truck crops.
Torrance County, N. Mex....	31	1 p. m.	-----	-----	-----	do.	Unusually large stones, reported up to $2\frac{1}{4}$ inches in diameter. Considerable damage to roofs. Chickens killed and livestock injured.
Lewis and Idaho Counties, Idaho.	31	Afternoon	-----	-----	-----	Rain and hail	Hailstorm and cloudburst in Lawyer's Canyon district near Cottonwood and over portion of Nezperce prairie. Heavy erosion with landslides covering North-South Highway; hail damage to crops not heavy.
Carlsbad, N. Mex., and vicinity.	31	6 p. m.	-----	2	31,500	Hail and rain	Hail damage light; most damage caused by inundation. Railroad tracks washed out and train wrecked, causing death of 2 trainmen and injury to 3 others.
Colfax and Union Counties, N. Mex.	31	9 p. m.	-----	1	50,000	do.	Scattered hail damage throughout both counties. Automobile caught in flashflood, driver drowned.
Picacho, N. Mex., and vicinity.	31	P. m.	-----	-----	6,000	do.	Several head of sheep killed and extensive damage to water tanks, canals, and roads.

¹ Miles instead of yards.

LATE STORM REPORTS FOR APRIL, 1948

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Place	Date	Time	Width of path, yards	Loss of life	Value of property destroyed	Character of storm	Remarks
Arkansas, central portion....	7	Evening	-----	-----	36,000	Thunderstorms and hail.	In Pine Lake section 10 miles south of Little Rock; 12 homes damaged, \$10,000; 1 injury. At Glenwood in Pike County hail as large as eggs; damage to roofs and windows, \$6,000. At Forrest City in St. Francis County damage mostly to roofs, windows and a greenhouse, \$20,000. "Donut" hail stones, about 1 inch in diameter fell at Hot Springs for a few minutes, caused slight damage.
Union, Ouachita, Calhoun, and Bradley Counties, Ark.	8	Afternoon	-----	-----	1,100,000	do.	At El Dorado 4,000 homes and 1,000 cars damaged, estimated at \$1,000,000. Hail as large as "tennis balls" (some actual measurements given as $3\frac{1}{4}$ inches in diameter) fell from 8 to 16 minutes. Hail damage also reported in Johnsville, Smackover, and Stephens, with damage at \$100,000. 2 persons injured and several hundred chickens killed. Crop damage negligible.
Arkansas, entire State.....	12	-----	-----	1	-----	Thunderstorms and wind.	Farmers Market Building at Bald Knob leveled. 1 death and 2 injuries. Minor damage in other scattered sections.
Springdale, Ark.....	30	Morning	-----	1	-----	Electric	A boy killed by lightning.